


Fire Safety Guidelines for Homes for the Aged, Nursing Homes and Hospitals



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SECTION 1. BASIC FIRE PLAN

A basic fire plan should be established for application to suit every individual facility. The plan should contain specific directions on fire emergency procedures and evacuation sequence.

SECTION 2. EMERGENCY PROCEDURES AND EVACUATION

Subsection 2.1.

In the event of a fire emergency, the following procedures should be implemented.

On discovering fire or smoke:

- (1) — if a patient or resident is involved in a fire, extinguish fire and evacuate patient or resident to safety — **CLOSE DOOR**;
- (2) — sound fire alarm;
- (3) — call switchboard or main nurses' station to give exact location and describe fire condition;
- (4) — close all doors in the fire zone;
- *(5) — use first-aid fire fighting equipment, if possible;
- *(6) — initiate evacuation procedures.

On hearing the fire alarm:

- (1) — return to your assigned area immediately using stairs;
- (2) — close all doors and windows in your area and stay alert for signs of smoke or fire;
- (3) — report to nurses' station for instructions;
- (4) — reassure patients or residents and advise visitors to remain with patients or residents;
- (5) — turn on lights.

Note: Do not use telephone except for emergencies. Do not use elevators.

Subsection 2.2. Evacuation Procedures

The general stages of evacuation are the movement of residents or patients to a temporary safe area of refuge, either horizontally or vertically. Total evacuation of all occupants from the building would be the final stage if deemed necessary by the senior person in charge or the fire department.

*The order of (5) and (6) is reversed for Homes for the Aged and Nursing Homes.

Intermediate stages moving residents from floor to floor may also be necessary. In designing a fire safety plan, the type of fire alarm system, the height of the building and the fire separated compartments must be taken into consideration.

Note: A single-stage fire alarm system is based on the premise that the residents or patients leave the building upon hearing the fire alarm signal. A two-stage fire alarm system permits staff to investigate and take appropriate action.

2.2.1. Horizontal Evacuation

As indicated, horizontal evacuation refers to the moving of residents from a fire affected area to a safer area on the same floor. The boundary between the fire affected area and the safer area in this case is a fire separation across the floor which has a fire-resistance rating and which includes a self-closing door, or doors, across the corridor.

Where the facility is suitably compartmented by fire separations across floor areas, horizontal evacuation will be the predominant type of evacuation. Horizontal evacuation should be started without delay when it has been determined that the fire cannot be easily extinguished, or contained, or if smoke is threatening that zone. In general, the order of evacuation should be as follows:

- (1) — Residents or patients in immediate danger from the fire;
- (2) — Ambulatory residents or patients;
- (3) — Non-ambulatory residents or patients including wheel-chair users.

2.2.2. Vertical Evacuation

Vertical evacuation refers to the moving of residents from a fire affected area to a safer area on another floor below the fire floor. In this case, the boundary between the fire affected area and the safer area is the fire separation between the floors.

Vertical evacuation, which may be used in a facility with a two-stage fire alarm system is an appropriate measure where fire separations have not been provided across the floors.

2.2.3. Total Evacuation

Every occupant in the building is to be evacuated to the outside. Complete evacuation of the building can be the most serious undertaking facing the staff of the home.

There are many problems to consider, such as, where the residents will be taken and how they will be transported. An evaluation of buildings such as schools, churches, or public buildings, which could be used to accommodate the residents, is necessary. It is also essential to establish a temporary record keeping

system in order that the residents can be accounted for. The lives of staff, fire fighters and residents can be jeopardized if residents cannot be located.

The plan must include the required number of vehicles and drivers to move the residents, such as ambulances, station wagons, trucks, etc. It may also be necessary to move certain medical supplies, medical records, etc.

Even the best evacuation plan cannot be successful unless the staff of the facility are trained to carry out the procedures established. Also, horizontal evacuation, vertical evacuation and complete evacuation of non-ambulatory or semi-ambulatory residents, cannot be accomplished without an adequate number of staff, or others, to provide the necessary assistance to these residents. To insure that enough people will be available to assist in an emergency it may be necessary to develop and train a community volunteer group to supplement the regular staff and fire fighting and police forces. This might consist of neighbourhood residents or shift workers in local industry who are regularly in the neighbourhood of the facility.

Pre-planning for the total evacuation should also include establishing liaisons with the police force, transportation companies, and emergency service organizations in the community to determine what measures will be necessary to maintain the care of residents or patients while away from the facility.

Subsection 2.3. Staff Responsibilities

2.3.1. Responsibilities of the Administrator or Alternate:

- (1) Developing a fire safety program for the facility.
- (2) Ensuring that the fire safety procedures are efficiently and effectively carried out.
- (3) Taking complete charge during and after a fire emergency.

2.3.2. Responsibilities of the Director of Nurses or Equivalent:

- (1) Directing emergency procedures in the area.
- (2) Ensuring that the established emergency procedures for the facility are carried out.
- (3) Co-ordinating instructions from control centre or command post.
- (4) Ensuring that all residents or patients are removed from immediate danger.

2.3.3. Responsibilities of Charge Nurses:

- (1) Ensuring the safety of patients or residents in their areas.
- (2) Initiating and directing evacuation as necessary in the interest of occupant safety.

Subsection 2.4. Specific Instructions

Introduction:

In the event of a fire, judgement may be necessary in deciding which action is appropriate in a given situation. The selection made should always be the one which achieves the greatest protection for the occupants.

2.4.1. Switchboard or Control Centre

Upon Hearing Fire Alarm:

- (1) Check annunciator for location of alarm.
 - (2) Notify or confirm the alarm with fire department (*phone number*).
- Note:* If call received from fire area, relay information to fire department but *do not* wait for call.
- (3) Announce fire location in code over public address system, if applicable. Repeat three times.
 - (4) Avoid accepting incoming calls.
 - (5) Keep line open to fire area.
 - (6) In the event of an alarm notify the following:
i.e. Administrator — phone number
Director of Nursing — " "
Fire Safety Officer — " "
Chief Engineer — " "
 - (7) Maintain communications between fire area and staff pool.
 - (8) Keep written record, including proper sequence of events and time, etc.
i.e. — 1. Alarm received — 3:10 p.m.

Note: An alternate location should be pre-planned in the event that the switchboard or control centre area is affected by a fire. General procedures established in 2.1. should be followed.

2.4.2. Nurses' Stations

When a fire occurs in your area:

- (1) Pull the fire alarm and give assistance to persons in immediate danger.
- (2) Close all doors. Confine fire.
- (3) Notify the telephone switchboard operator and keep this line open so that instructions and information may be easily exchanged.
- (4) All doors are to be closed and the patients reassured.
- * (5) Fight the fire, if possible.
- * (6) Initiate evacuation procedures, if necessary.

*The order of (5) and (6) is reversed for Homes for the Aged and Nursing Homes.

- (7) Direct any visitors back to the patients they came to visit, if practicable.
- (8) Shut off all auxiliary equipment such as fans, heaters, oxygen, etc.
- (9) Turn on all lights.
- (10) If time permits, remove records.

Upon hearing the fire alarm:

- (1) Return to your assigned area, immediately.
- (2) Close all corridor doors and windows to prevent any heat or smoke from getting into the rooms and to prevent drafts.
- (3) Shut off all fans, ventilation, gas and electrical equipment.
- (4) Pay special attention to the patients receiving oxygen since central supply oxygen may be shut down.
- (5) Direct any visitors to a predetermined area.
- (6) Turn on all lights.
- (7) Reassure patients — tell them the fire is in another part of the building and that the fire-fighters are getting it out.
- (8) Do not use the telephone except when you have important information for the switchboard. Have someone available to take incoming calls to the nursing unit.
- (9) Do not use the elevator as the power may be shut off at any time.
- (10) Stand by for further instructions.

2.4.3. Administration Services

When a fire occurs in your area:

- (1) Ensure the safety of occupants and pull the fire alarm.
- (2) Close the door to the room in which the fire is located.
- (3) Close all doors in the area.
- (4) Notify the switchboard operator and keep this line open so that instructions and information may be exchanged.
- * (5) Fight the fire, if possible.
- * (6) Initiate evacuation procedures, if necessary.
- (7) Shut off special equipment such as office machines, fans, ventilators, etc.
- (8) Safeguard vital records by closing the safes, files, desks, etc.

Upon hearing the fire alarm:

- (1) Close all windows and doors in your area in order to stop smoke and eliminate drafts.
- (2) Turn off any special equipment such as fans, ventilators, etc.

*The order of (5) and (6) is reversed for Homes for the Aged and Nursing Homes.

- (3) Do not use the telephone except to give vital information.
- (4) Do not use the elevator as the power may be shut off momentarily.
- (5) Report as quickly as possible to a predetermined location for further instructions.
- (6) Turn on all the lights.

2.4.4. Maintenance Services

When a fire occurs in your area:

- (1) Pull the fire alarm.
- (2) Close the doors leading to the room in which the fire is located.
- (3) Notify the telephone switchboard operator and keep this line open so that instructions and information may be exchanged.
- (4) Make sure special equipment such as ventilators, fans, etc., are turned off.
- (5) Fight the fire, if possible.
- (6) Evacuate area, if necessary.

Upon hearing the fire alarm:

- (1) Close all windows and doors in order to stop smoke and drafts.
- (2) Turn all equipment off and report to a predetermined location for further instructions.
- (3) A person should be assigned to return elevators as soon as possible.
- (4) A person should be available to reset the alarm when the "all clear" is authorized by the Administrator, an appointee, or the fire chief.

2.4.5. Housekeeping

If you are in the fire area:

Follow the established general procedures under 2.1.

When a fire occurs in your area:

- (1) Pull the fire alarm.
- (2) Close the door to the room in which the fire is located.
- (3) Notify the switchboard operator and keep this line open.
- (4) Fight the fire, if possible.
- (5) Turn on all the lights.
- (6) Close the doors and windows in the area and shut off any electrical equipment in the area.
- (7) Evacuate area, if necessary.

Upon hearing the fire alarm:

- (1) Close all the doors in your departments.

- (2) Assign one person to answer any incoming calls, if applicable. Do not make outgoing calls unless it is absolutely necessary.
- (3) One employee in each area should remain on duty while the others report to a predetermined location.
- (4) Do not use the elevator as it may shut down at any time.
- (5) Members of the housekeeping staff who are in areas other than their assigned area should report to the nearest nursing station, or a predetermined location.

2.4.6. Laundry Services

When a fire occurs in your area:

- (1) Pull the fire alarm.
- (2) Close the door to the room in which the fire is located.
- (3) Notify the switchboard operator and keep this line open.
- (4) Fight the fire, if possible.
- (5) Turn on all lights.
- (6) Close the doors and windows in the area and shut off any electrical equipment in the area.
- (7) Evacuate area, if necessary.

Upon hearing the fire alarm:

- (1) Close all the doors in your departments.
- (2) Assign one person to answer any incoming calls, if applicable. Do not make outgoing calls unless it is absolutely necessary.
- (3) One employee in each area should remain on duty while the others report to a predetermined location.
- (4) Do not use the elevator as it may shut down at any time.
- (5) Staff who are in areas other than their assigned area should report to the nearest nursing station, or a predetermined location.

2.4.7. Dietary Services

When a fire occurs in your area:

- (1) Pull the fire alarm.
- (2) Close the door to the room in which the fire is located.
- (3) Notify the telephone switchboard operator and keep this line open so that information and instructions may be easily exchanged.
- (4) Fight the fire, if possible.
- (5) Turn on all the lights.
- (6) Close the doors and windows in the area.
- (7) Shut off all fans and cooking equipment in the area.

(8) Evacuate area, if necessary.

Upon hearing the fire alarm:

- (1) Close all windows and doors in your department.
- (2) Assign one person to answer incoming telephone calls, if applicable. Do not make outgoing calls unless absolutely necessary.
- (3) One employee in each area is to remain on duty while the others report to a predetermined location.
- (4) Do not use the elevator as it may be shut down at any time.
- (5) Members of the dietary staff who are in other areas are to report to the nearest nursing station or a predetermined location.

2.4.8. Lockers — Stores

(except storage rooms in residents' areas)

When a fire occurs in your area:

- (1) Pull the fire alarm.
- (2) Close the doors leading to the room in which the fire is located.
- (3) Notify the telephone switchboard operator and keep this line open so that instructions and information can be easily exchanged.
- (4) Fight the fire, if possible.
- (5) Turn on all lights.
- (6) Close doors and windows in area.
- (7) Evacuate area, if necessary.

Upon hearing the fire alarm:

Close all doors and windows in order to stop smoke and eliminate drafts.
Report to the staff pool and wait for instructions from the fire control centre.

2.4.9. Common/Recreation/Craft Areas

When a fire occurs in your area:

- (1) Pull fire alarm and give assistance to persons in danger.
- (2) Close all doors. Confine fire.
- (3) Call switchboard. Give location and extent of fire.
- * (4) Fight fire, if possible.
- * (5) If necessary, initiate evacuation procedure.

Upon hearing the fire alarm:

- (1) Close all doors and windows.
- (2) Proceed with pre-planned fire procedures.
- (3) Ensure that visitors remain with patients and await further instructions.

*The order of (4) and (5) is reversed for Homes for the Aged and Nursing Homes.

SECTION 3. EMERGENCY LIFTS AND CARRIES

Subsection 3.1.

Preliminary planning and rehearsal of the most effective responses to a fire or another emergency situation are essential. There is scant time to act in an actual emergency situation let alone to plan a course of action.

Many methods might be used to move residents or patients or to give them assistance, support and added speed, however, experience and practice will increase anyone's ability to move heavier and disabled people under adverse conditions. The emergency lifts and carries listed in the latest edition of the publication "Emergency Removal of Patients and First Aid Fire Fighting in Hospitals" by National Safety Council, 425 North Michigan Avenue, Chicago, Il. 60611, U.S.A., should be used as a basis for planning and training of staff.

Suitable additional methods may also be developed and used depending on the available appliances and equipment, e.g. chairs and wheelchairs.

SECTION 4. FIRE SAFETY SYSTEMS AND EQUIPMENT

Subsection 4.1.

All or some of the following fire protection systems and equipment may be required by current legislations:

- Portable fire extinguishers
- Standpipe and hose systems
- Automatic sprinkler systems
- Water supply
- Fire pumps
- Fire alarm systems
- Emergency power supply
- Fixed-pipe extinguishing systems
- Voice communication systems, and
- Smoke control measures for high buildings

4.1.1. Portable Fire Extinguishers

Portable extinguishers are intended as a first line of defence to cope with fires of limited size. They are needed even though the property is equipped with automatic sprinklers and/or stand-pipe and hose systems. The basic types of fires are Classes A, B and C. Portable extinguishers are rated for the corresponding classes of fire.

4.1.2. Standpipe and Hose Systems

A standpipe system is an arrangement of piping, valves and hose outlets installed in a building or structure in such a manner that water can be discharged through a hose and nozzle for the purpose of extinguishing a small fire. The system is connected to a water source for adequate supply of water to the hose outlets.

4.1.3. Automatic Sprinkler Systems

An automatic sprinkler system is a series of underground and overhead piping designed in accordance with fire protection engineering standard. The installation includes a water supply such as a storage tank or municipal water supply. The system includes a controlling valve, a series of sprinkler heads and a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area, before the arrival of fire department personnel.

4.1.4 Water Supply

The total water supplies required for fire fighting purposes may be supplied from various sources including municipal water supply, storage tanks (elevated or underground), lakes, rivers, wells, swimming pools or a combination of sources; and should be obtained within practical distances. Water supplies must be accessible to fire fighting equipment.

4.1.5. Fire Pumps

Fire pumps are used to ensure that the required quantity and water pressure, as determined by regulations for the automatic sprinkler and standpipe and hose systems, are adequately provided.

4.1.6. Fire Alarm Systems

There are two general types of fire alarm systems for health care facilities, namely, single-stage system and two-stage system.

a. A single-stage system sounds a general alarm throughout the facility that requires total evacuation of the building. Operation of fire alarm is activated by a manual pull station, heat detector, smoke detector or a sprinkler head.

b. A two-stage fire alarm system is designed to allow staff to investigate and take appropriate action and may require evacuation of the fire affected area. The general alarm or second-stage signal is reserved as a clear indication for complete evacuation of the building where this proves necessary.

4.1.7. Emergency Power Supply

Emergency power supply is required to ensure the continued operation of fire safety equipment and systems in case of loss of normal hydroelectric power.

4.1.8. Fixed-pipe Extinguishing Systems

A fixed pipe extinguishing system is a fire suppression system designed for a specific hazard or operation, such as commercial cooking equipment and fume hoods, etc.

4.1.9. Voice Communications Systems

A voice communication system is required by current legislation for new construction in high buildings only. The system is used primarily to effect an orderly relocation of occupants from an area affected by a fire to a safe area inside or outside the protected building.

4.1.10. Smoke Control Measures for High Buildings

Subsection 3.2.6. of the Ontario Building Code, which regulates new construction, requires smoke control measures in health care facilities where patients are in bed or infirm persons are located above the third storey. Smoke control measures may consist of special construction and equipment to limit the volume of contaminated air on all floor areas, from the fire floor.

SECTION 5. MAINTENANCE OF FIRE SAFETY SYSTEMS AND EQUIPMENT

The maintenance, inspection and testing of fire safety systems and equipment should be conducted in accordance with Part 6 and Part 7 of the Fire Code made under the Fire Marshal’s Act.

SECTION 6. FIRE PREVENTION AND HOUSEKEEPING

Subsection 6.1. General Maintenance and Housekeeping

Fire Hazards

A high standard of housekeeping and building maintenance is probably the most important single factor in the prevention of fire. It is also one of the most difficult factors to regulate effectively. Specific deficiencies can be recognized and recommendations made, however, and some of these are listed below.

Recommendations

The following sample recommendations describe the measures that should be taken to correct the hazards listed on the opposite column.

6.1.1. Refuse Storage

- (1) Combustible refuse not stored in designated room.

Store combustible refuse in a separated room which should be protected by sprinklers.

- (2) Refuse stored so that it blocks exterior doors.

Remove refuse and maintain doorway clear of such material.

Infrequently used doors are often blocked by storage of refuse.

- (3) Used rags not stored in a covered metal container.

Store used rags in covered metal container.

Used oily rags may be susceptible to spontaneous combustion.

Storing them in a closed metal container would limit the oxygen necessary for spontaneous combustion and confine any fire that did occur.

6.1.2. Maintenance of Fire Doors

Fire doors are generally doors to stairway enclosures, hazardous areas and doors in fire separations forming fire compartments.

- (1) Self-closer missing, not attached, or inoperative.
- (2) Door warped, sagging, or binding so that it does not open or close properly.
- (3) Door tied, wedged or blocked open.

Replace or repair self-closer so that it operates properly.

Replace or repair door and frame so that the door closes properly in the frame.

These doors must be closed at all times or may be held open by magnetic hold-open devices actuated by smoke or heat detectors connected to the fire alarm system. (Hold-open devices are not permitted on doors to stairway enclosures).

Remove wedge or any other item holding the door open.

- (4) Wired glass broken, cracked, or missing.

Replace missing or defective glass with new panel of 1/4 inch wired glass.

6.1.3. Wall and Ceiling Maintenance

- (1) Opening in ceiling serving as fire separation.
- (2) Opening in wall serving as fire separation.

Seal opening with material used in existing construction, or other material having an equivalent fire resistance rating.

Seal opening with material used in existing construction, or other material having an equivalent fire resistance rating.

Noncombustible ceiling, wall and partition finishes are often, but not always, required to protect structural members, or to separate one room or storey from another. In general, it is good practice to have openings sealed.

6.1.4. Flammable Liquids and Gases Storage

- (1) Gasoline stored inside building.
Gasoline should not be stored in a building (except for gasoline in integral tanks of engines driving emergency equipment).

Remove gasoline from building.

- (2) Flammable liquids not stored in designated storage room.

Remove flammable liquids and store in the designated storage room.

Flammable liquids should be stored in a designated room which is separated from all other areas and is used only for that purpose.

- (3) Excessive quantities of flammable liquids and gases stored in building.

Excessive quantities of flammable liquids must be reported to Fire Safety Committee.

The amount of flammable liquid and gases other than gasoline (e.g. varsol, kerosene, alcohol, aerosol containers) should be limited to the quantity required for use over a reasonable period of time.

- (4) Propane tanks inside building.

With the exception of small 2-1/2 lb. cylinders, propane tanks are not permitted inside a building.

- (5) Oxygen cylinders near cylinders of combustible gas or flammable liquids.

Pure oxygen increases the intensity of any fire and is apt to produce an extremely violent fire when combined with combustible gases such as acetylene, propane etc. except for operations welding units.

- (6) Cylinders not properly supported.

Cylinders should be stored upright and tied in place or secured by some other means. A cylinder falling and hitting the floor could be damaged so that it would leak the combustible or oxidizing gas.

Propane tanks larger than 2½ lb. cylinders shall be removed from the building.

Oxygen cylinders shall not be stored with and shall be located as far as possible from cylinders of combustible gas and flammable liquids.

Cylinders shall be supported in an upright position in a manner to prevent their falling.

6.1.5. Welding Operations for Facility Maintenance

Welding or cutting operation in vicinity of combustible material.

Sparks and hot bits of metal can be thrown as far as 30 or 40 ft., causing ignition of combustible material.

Heat transfer can cause ignition of adjacent combustible materials.

Separate welding or cutting operation from any combustible material with flame resistant partitions or similar protection.

Persons responsible for facility maintenance should inspect hazards in the work vicinity immediately before and after the operation whether performed by staff or contractor.

Subsection 6.2. Electrical Equipment And Wiring

Defective electric wiring and appliances rank as one of the major sources of fire each year. In making building inspections, fire safety committees can assist by noting obvious electrical faults and recommending corrective action, or an inspection by Ontario Hydro if the deficiencies are more serious.

The following sample recommendations describe the measures that must be taken to correct the hazards listed on the opposite column.

6.2.1. Fusing

Over-fusing or by-passing of fuses.

Replace over-rated fuse or by-pass device by a fuse rated for the designed circuit.

Fuses are like safety valves to prevent overloading, and the resulting overheating of electrical wiring and equipment. Fusing for ordinary lighting and receptacle circuits should not exceed 15 amps.

6.2.2. Extension or Appliance Cords

- (1) Splices in extension or appliance cords.

Replace spliced cord with new cord.

There is a risk that splices, particularly in cords used over a period of time, will cause overheating or arcing, which could cause a fire. The Ontario Electrical Safety Code does not permit such splices.

- (2) Extension cords under rugs.
Extension cords under rugs may have their insulation damaged by the impact of people or furniture.

Remove extension cord under rug.

- (3) Extension cords fastened to walls.

Remove extension cord fastened to wall.

This is prohibited by the Ontario Electrical Safety Code since the insulation can be so easily damaged and overheating or arcing may occur.

- | | |
|------------------------------------|---------------------------------------|
| (4) Damaged or deteriorated cords. | Replace damaged or deteriorated cord. |
|------------------------------------|---------------------------------------|

6.2.3. Electrical Equipment and Appliances

- | | |
|--|---|
| (1) Combustible materials too close to permanent electric heaters or lamps.

<i>The temperature of a 100 watt bulb can be as high as 450°F. Some combustible materials subjected to such temperatures over a period of time could ignite. Electric heaters can also cause ignition if too close to combustibles.</i> | Remove combustible material from vicinity of electric heaters or lamps. |
| (2) Unapproved or “home-made” appliances. | Either discard appliance or have it inspected by Ontario Hydro. |
| (3) Use of portable electric heaters. | Portable electric heaters not permitted. |

Subsection 6.3. Hazardous Areas

6.3.1. Furnace and Boiler Rooms

Heat producing appliances, such as furnaces, boilers, space heaters and incinerators are one of the commonest sources of fire. They operate at temperatures above the ignition temperature of most combustible materials and, in addition, combustion type appliances involve the hazard of flammable fuels.

The following sample recommendations describe the measures that must be taken to correct the hazards listed on the opposite column.

- | | |
|--|--|
| (1) Smokepipes and Flues

a. Smokepipe connecting heating appliance to chimney or flue improperly supported. | Provide noncombustible straps or hangers to insure that smokepipe is firmly supported with a minimum amount of play or movement at joints. |
|--|--|

- b. Smokepipe with holes, corroded or loose fitting.

Holes in smokepipe may allow combustion products to enter the building. Carbon monoxide may be given off, and is flammable and extremely toxic. Such openings will also reduce the draft effect on flue or chimney.

- c. Combustible material on or near smokepipe.

Many combustible materials may not ignite immediately when in contact with a hot surface, but their ignition point is lowered when exposed to high temperatures over a period of time.

- d. Flue clean-out opening.

A clean-out opening is required at the bottom of each flue or chimney. This should be regularly cleared of the soot that builds up from smoke particles settling out.

(2) Storage

- a. Combustible storage in furnace or boiler rooms.

There is a tendency for those rooms to be used for storage accumulation, and as workshops, compounding the fire hazard.

- b. Storage of ashes in combustible containers.

- (3) Fusible link replaced with improper device.

Replace or repair defective smokepipe.

Remove combustible material in contact with smokepipe and from area where it would be subjected to radiant heat from smokepipe. Storage of combustible materials should be maintained at a minimum distance of 36 inches.

Remove soot and ashes from clean-out opening. Insure opening is provided with a proper cover.

Remove combustible storage materials from furnace or boiler room.

Provide noncombustible containers for storage of ashes.

Replace missing fusible link with fusible link listed by Underwriters Laboratories, and rated at approximately 50°F. above the maximum normal room temperature.

Fire doors, dampers or shutters in furnace room enclosures are often held open with fusible links which melt and actuate the closing mechanism in the event of fire. Sometimes these links fail and are replaced by a nonfusible element, such as wire, thus defeating the self-closing capability of the closure.

- (4) Combustible materials located too close to heating unit.

Combustible materials including furnishings are sometimes found near space heaters in living areas. These conditions can lead to the ignition of the combustible materials.

Remove combustible materials from proximity to heating unit. Storage of combustible materials should be maintained at a minimum distance of 36 inches.

6.3.2. Laundry Room

- (1) Combustible storage in laundry room.
- (2) Flammable liquids in laundry room.

Laundry room electrical or gas equipment is susceptible to fire and any additional storage would increase the risk of a serious fire.

- (3)a. Dryer lint collector full.

Remove combustible storage from laundry room.

Remove flammable liquids from laundry room.

Remove lint after each load. Post sign in laundry room reading: "Please remove lint from lint collector after each load".

- b. Dryer filter damaged.

The lint in the collector of the dryer is readily ignitable.

Replace damaged filter.

- (4) Lint behind dryers.

The dryer should be vented to the outside so that lint will not collect in the room.

Remove lint from behind dryers.

- (5) Combustible or uncovered containers for lint.

Lint may ignite spontaneously.

Provide covered metal containers for lint.

6.3.3. Locker Rooms

Combustible storage in aisles or on top of lockers.

The fire load of such rooms must be controlled by confining storage to lockers.

Remove any combustible storage from locker room not contained within lockers.

6.3.4. Main Hydro Room

- (1) Combustible storage in hydro room.

Remove combustible storage from main hydro room.

- (2) Fuse(s) by-passed.

Remove fuse by-passing device and replace with correctly sized fuse.

Overfusing will allow the conductors to carry more current than they were safely designed for, which could result in a fire.

- (4) Disconnect switches or circuit breakers not identified.

Identify the circuit which each switch protects.

The panels should be marked so the disconnect switch in the fire area can be switched off.

6.3.5. Elevator Machinery Room

- (1) Combustible storage in elevator machinery room.

Remove combustible storage from elevator machinery room.

- (2) No portable fire extinguisher for elevator machinery room.

Install 10BC fire extinguisher in or adjacent to the elevator machinery room.

6.3.6. Kitchens

The gas flame or electric element of the stove provide a ready source of ignition for spilled oil or grease and the vapour given off by the cooking oil or grease will condense and accumulate on the ceiling and walls of the room, unless removed by a suitable exhaust system. A grease fire will rapidly spread and involve all grease in the area.

(1) Exhaust Hood and Ducts

- a. Filters or grease extractors in hood contain excessive grease.

An exhaust ventilation system should be provided over cooking surfaces to collect and carry grease laden vapour to the outside. The grease filters or extractors are required to retard the accumulation of grease inside the ducts. Excessive grease accumulation on the hood filter or extractor should be prevented by regular cleaning, as a fire involving the cooking surface will soon ignite excess grease on these components.

- b. Lamps in exhaust hood not of the vapour-proof type.

Lamps on which grease may accumulate must be of the vapour-proof type (i.e. covered by a sealed outer glass casing) to prevent the possibility of ignition of the grease by the heat from the light bulb.

The following sample recommendations describe the measures that should be taken to correct the hazards listed on the opposite column.

Maintain filters or grease extractors free of excessive grease.

If lighting is required in hood, vapour-proof lamps shall be installed and inspected by Ontario Hydro.

- c. Exhaust ducts contain excessive grease.

The grease filters or extractors will not prevent all grease from entering ducts. The ducts should be cleaned by an agency specializing in such work, and a record of the date of cleaning kept and made available to the fire department.

- d. Exhaust hood and duct less than 18 inches from combustible surfaces.

There is a risk of fire spread to combustible surfaces as a result of an exhaust hood and duct fire.

- e. Nozzles of the extinguishing system obstructed.

If the nozzles are obstructed, the extinguishing agent may be retarded or diverted, and not extinguish the fire.

- f. Manual actuating switch of system not identified or inaccessible.

The manual actuating switch for the extinguishing system should be identified and accessible. The staff would then be able to actuate the system when a small fire is observed before the system is actuated automatically. The smaller the fire at the time of actuation of the system, the greater the probability that the fire will be extinguished before it can spread to the ductwork.

- (2) Portable Fire Extinguisher missing.

Remove grease from ducts of exhaust system for kitchen.

Provide 18 inches of clearance from exhaust hood and duct to combustible surfaces in the kitchen or provide protection for the combustible surfaces.

Remove obstruction from the nozzles of the automatic extinguishing system in the kitchen.

Post a sign reading "Manual switch for Extinguishing System" adjacent to the switch in the kitchen. Relocate switch that is difficult to get at to accessible location along the path of egress.

Provide 10BC extinguisher, mounted on wall bracket in or adjacent to kitchen.

A 10BC extinguisher is considered to be capable of extinguishing a flammable liquid fire of 10 sq. ft., when used by a non-professional. Thus, if the stove cooking surface and the deep fat frier surface is greater than 10 sq. ft., additional extinguishing capacity is required.

- (3) Combustible refuse allowed to accumulate in kitchen.

Remove accumulation of combustible refuse from kitchen during each shift.

Combustible refuse should be cleaned up during each shift and removed from the premises or stored in metal containers with metal covers in the designated room.

Subsection 6.4. Maintenance And Craft Shops

6.4.1. Flammable Liquids

- (1) Excessive amount of paint, lacquer, solvent or thinner.

Amount of paint, lacquer solvent and thinner should not exceed the amount required for the work being performed.

Limiting the amount of flammable liquids will limit the amount of fuel, thus the intensity of fire.

- (2) Servicing small equipment without removing the fuel.
- (3) Storage of gasoline powered equipment, such as tractors, lawn mowers and snow blowers, in other hazardous areas.

Remove the flammable liquids from the equipment before servicing.

Gasoline powered equipment should be stored in approved locations only.

6.4.2. Containers for Flammable Liquids

- (1) Paint or lacquer in open containers.
- (2) Thinner and solvents not in safety cans.

Maintain paint and lacquer containers covered.

Provide ULC approved safety cans for volatile thinners and solvents in shop areas.

Safety cans will not explode when subjected to heat or fire, and have an automatic closing device and/or seal to prevent inadvertant spillage.

- (3) Improper maintenance of safety cans.

Replace or repair as necessary. Inspect for missing flame arresters, seal and filter caps and for physical damage.

6.4.3. Sprinklers

Sprinkler heads covered with paint. Replace sprinkler heads.

Subsection 6.5. Note on Smoking Policy

There is an existing smoking policy for each type of the facilities (Homes for the Aged, Nursing Homes and Hospitals). Due to the specific nature of each type of facility, no attempt was made by this Committee to come up with a common policy. Appropriate policy should be developed to suit each facility to the satisfaction of the administrator and the Ministry.

SECTION 7. IN-SERVICE TRAINING OF STAFF

Subsection 7.1. General

The entire staff should be made familiar with all necessary emergency procedure details; drills and inspections should be arranged to assure the effective continuation of the program. Responsibility for the continuance of the program and drills, review and revision of the program as conditions change, and training of new personnel should be the responsibility of the administration.

Subsection 7.2. In-Service Training

7.2.1. All Staff — Emergency procedures should form a part of the in-service training program. It is presumed that such training will include certain basic items such as prompt reporting of fire, operation of the fire alarm system, location and operation of hand fire extinguishers, limiting fire and smoke spread by closing doors and windows, taking measures, as may be necessary, to safeguard patients in their charge, including methods of evacuation, and above all, concealment from patients of any apprehension that may be felt by the staff or the employee.

7.2.2. Drills — Fire drills should be held in compliance with Subsection 2.8.3. of the Fire Code and the Regulations made under the respective provincial legislations.

SECTION 8. FIRE DEPARTMENT PRE-PLANNING

Subsection 8.1.

In an effort to assist in organizing a fire safety program for your facility, the fire department should be approached (a) to review the emergency procedures for compatability, (b) to help train personnel and (c) to tour the facility so that the building conditions, contents and fire fighting facilities can be taken into consideration in the Fire pre-planning by the fire department.

Subsection 8.2.

Consideration should be given in pre-planning for possible shut down of main gas supply, water supply or electric power supply.

